

REMARKS

Claims 19-50 are pending in this application. By this Amendment, claims 19, 20, 22-26, 29-32 and 46-48 are amended, and claims 18 and 51 are cancelled.

The Office Action rejected claims 23-26, 31-33 and 46-49 under 35 USC §112, second paragraph. Applicants submit that many of the rejections are not correct, however, in the interest of expediting prosecution, the claims are amended to obviate the rejections. In light of the above, Applicants request that the rejection be withdrawn.

The Chen Reference

The Office Action rejected claims 18-20, 30, 36 and 50 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,281,611 to Chen et al. Applicants respectfully traverse the rejection.

Claim 18 is cancelled. Claim 19 is rewritten in independent form with no other amendments. Because, for the reasons discussed below, claim 19 is not anticipated by Chen, and because claim 19 is not amended (other than to be rewritten in independent form) the next office action cannot be a final rejection.

Claims 20, 22, 29 and 30 are amended to depend from claim 19.

Claim 19 includes the feature of the winding core being substantially rotationally symmetrical. In contrast, the office action defined winding core (core 134) of Chen is not substantially rotationally symmetrical. The term “rotationally symmetrical” as defined in the specification means that the core can be rotated around an axis (for example, axis 14 in Fig.1) and its shape relative to a fixed element (in this case a fixed core in the hob) does not change. This is important because, as stated in the specification at page 2, lines 20-24, the inductive energy transfer in such an embodiment is independent of the angle of rotation of the device for heating food (the pot) relative to the device for transferring energy (the hob). By providing a substantially rotationally symmetrical winding core, the invention avoids the need for a motor, as required by Chen.

Core 134 of Chen is bar shaped with two faces 136 that are spaced apart from each other (col. 5, lines 11-13). Due to the shape of core 134, magnet 42 must be rotated by motor 22 for the device to operate.

Claim 20 includes the feature of the winding core being configured as a pot core. The specification defines a pot core as an at least largely rotationally symmetrical core comprising an outer wall and an inner wall separated from the outer wall by a base (page 2, line 31 – page 3, line 1). As discussed above, core 134 of Chen is not substantially (or largely) rotationally symmetrical. Further, Applicants strongly disagree with the Office Action's assertion that Chen's core 134 is the same configuration as winding core 74 shown in Fig. 8 of the Application. Winding core 74 is pot shaped and rotationally symmetrical. Winding core 74 has an annular side wall 88 (page 11, lines 28-31; Fig. 8). Core 134 of Chen has no annular side wall.

Claim 36 is directed to a device for transmitting energy to a device for heating food by means of induction. In contrast, the elements of Chen referred to in the Office Action are parts of container 30, not base 20. Container 30 is not a device for transmitting energy, it receives energy. Even if one was to argue that particular elements of Chen transmit energy (and Applicants assert they do not), nothing in container 30 transmits energy by means of induction.

Further, claim 36 includes the feature of the winding core being configured as a pot core. As discussed above, core 134 of Chen is not a pot core.

Claim 50 includes the feature of the winding core having an outer wall and an inner wall that are substantially circular and are arranged concentrically. In contrast, core 134 of Chen has no inner wall and no outer wall. Further, core 134 has no features that are concentric. The Office Action states that container 30 and base 20 are concentrically aligned together. Applicants assert that even if this were true, it would not be relevant to the question of whether core 134 has concentric walls.

In view of the foregoing, Applicants respectfully submit that Chen does not disclose each and every features of claims 18-20, 30, 36 and 50 and, therefore, rejection under 35 USC §102(b) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference

The Office Action rejected claim 36 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,530,499 to Schroeder. Applicants respectfully traverse the rejection.

Claim 36 includes the feature of the winding core being configured as a pot core. The specification defines a pot core as an at least largely rotationally symmetrical core comprising an outer wall and an inner wall separated from the outer wall by a base (page 2, line 31 – page 3, line 1). In contrast, core 13 of Schroeder is not largely rotationally symmetrical (it is not even remotely rotationally symmetrical). Further, Applicants strongly disagree with the Office Action’s assertion that Schroeder’s core 13 is the same configuration as winding core 74 shown in Fig. 8 of the Application. Winding core 74 is pot shaped and rotationally symmetrical. Winding core 74 has an annular side wall 88 (page 11, lines 28-31; Fig. 8). Core 13 of Schroeder has no annular side wall.

In view of the foregoing, Applicants respectfully submit that Schroeder does not disclose each and every features of claim 36 and, therefore, rejection under 35 USC §102(b) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Hibino Reference and the Schroeder Reference

The Office Action rejected claims 21 and 37 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of U.S. Patent No. 3,928,744 to Hibino et al. and Schroeder. Applicants respectfully traverse the rejection.

Initially, Applicants submit that neither Hibino nor Schroeder remedies the deficiencies of Chen discussed above.

Also, claims 21 and 37 include the feature of the winding core including a central column having a height different from a height of an annular side wall. Neither Hibino nor Schroeder show a central column having a height different from that of annular side wall. The Office Action applies Schroeder as showing a height difference between two walls and points to col. 6, lines 57-75. This passage of Schroeder says nothing about a height difference. Extensions 76 raise both ends of core 73 the same amount. There is no height difference. Further, even if a height difference were shown (and it is not), there is no height difference between a central

column and an annular wall.

In view of the foregoing, Applicants respectfully submit that the combination of Chen, Hibino and Schroeder does not teach or suggest the features of claims 21 and 37 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Iguchi Reference

The Office Action rejected claims 22, 23, 26 and 28 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of U.S. Patent No. 5,053,593 to Iguchi. Applicants respectfully traverse the rejection.

Claims 22, 23, 26 and 28 ultimately depend from claim 19.

Iguchi does not remedy the deficiencies of Chen discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Chen and Iguchi does not teach or suggest the features of claims 22, 23, 26 and 28 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Iguchi Reference and the Hibino Reference

The Office Action rejected claims 24 and 25 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Iguchi and Hibino. Applicants respectfully traverse the rejection.

Claims 24 and 25 ultimately depend from claim 19.

Neither Iguchi nor Hibino remedies the deficiencies of Chen discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Chen, Iguchi and Hibino does not teach or suggest the features of claims 24 and 25 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Iguchi Reference and the Akel Reference

The Office Action rejected claim 27 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Iguchi and U.S. Patent No. 6,498,325 to Akel et al. Applicants respectfully traverse the rejection.

Claim 27 ultimately depends from claim 19.

Neither Iguchi nor Akel remedies the deficiencies of Chen discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Chen, Iguchi and Akel does not teach or suggest the features of claim 27 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Akel Reference

The Office Action rejected claim 29 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Akel. Applicants respectfully traverse the rejection.

Claim 29 depends from claim 19.

Akel does not remedy the deficiencies of Chen discussed above.

Further, claim 29 includes the feature of the secondary winding being arranged on a printed circuit board. While Akel may include a printed circuit board, Akel does not show a winding being arranged on a printed circuit board. Further still, the Office Action does not point to anything in Akel that corresponds to the claimed secondary winding.

In view of the foregoing, Applicants respectfully submit that the combination of Chen and Akel does not teach or suggest the features of claim 29 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Iguchi Reference and the Ose Reference

The Office Action rejected claims 31-33 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Iguchi and U.S. Patent Application Publication No. 2001/0019048 to Ose et al. Applicants respectfully traverse the rejection.

Claims 31-33 ultimately depend from claim 19.

Neither Iguchi nor Ose remedies the deficiencies of Chen discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Chen, Iguchi and Ose does not teach or suggest the features of claims 31-33 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Chen Reference in view of the Schroeder Reference

The Office Action rejected claims 34 and 46 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Schroeder. Applicants respectfully traverse the rejection.

Claims 34 and 36 include the feature of a device for transmitting energy to the container, the device having a primary winding and a winding core located inside the primary winding. In contrast, as admitted by the Office Action, Chen does not show a primary winding and a core located inside the primary winding. The Office Action applies Schroeder as teaching a core inside a winding.

Applicants submit that it would not have been obvious to modify Chen to include the core and winding of Schroeder. The devices of Chen and Schroeder are very different. There is nothing in either reference (or the Office Action) that explains how adding the core and winding of Schroeder to the device of Chen would improve Chen.

In addition, claim 36 includes the feature of the winding core being a pot core. As discussed above, neither Chen nor Schroeder teach or suggest a pot core.

In view of the foregoing, Applicants respectfully submit that the combination of Chen and Schroeder does not teach or suggest the features of claims 34 and 46 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal

of the rejection.

The Schroeder Reference in view of the Chen Reference

The Office Action rejected claim 35 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Chen. Applicants respectfully traverse the rejection.

Claim 35 includes the feature of the winding core being substantially rotationally symmetrical. The Office Action applies Chen as showing a substantially rotationally symmetrical core. As explained above, the office action defined winding core (core 134) of Chen is not substantially rotationally symmetrical. The term “rotationally symmetrical” as defined in the specification means that the core can be rotated around an axis (for example, axis 14 in Fig.1) and its shape relative to a fixed element (in this case a fixed core in the hob) does not change. This is important because, as stated in the specification at page 2, lines 20-24, the inductive energy transfer in such an embodiment is independent of the angle of rotation of the device for heating food (the pot) relative to the device for transferring energy (the hob). By providing a substantially rotationally symmetrical winding core, the invention avoids the need for a motor, as required by Chen.

Further, Applicants submit that it would not have been obvious to modify the device of Schroeder with core 134 of Chen because to do so would require perfect alignment of appliance 11 on base 10 to provide even a chance for the device to operate. Chen can use a bar shaped core such as core 134 only because magnet 42 rotates. Core 13 of Schroeder does not rotate.

In view of the foregoing, Applicants respectfully submit that the combination of Schroeder and Chen does not teach or suggest the features of claim 35 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference in view of the Iguchi Reference

The Office Action rejected claims 38-42 and 44 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Iguchi. Applicants respectfully traverse the rejection.

Claim 38 includes the feature of the winding core including a plurality of separate core elements. The Office Action applies Iguchi as showing a plurality of separate core elements.

Applicants submit that it would not have been obvious to modify Schroeder to replace core 13 with a plurality of core elements. If core 13 of Schroeder was replaced with the multiple cores of Iguchi, it is unclear how core 15 would interact with the multiple cores. Also, replacing core 13 with multiple cores would add expense to the device of Schroeder and would therefore not be an obvious thing to do.

In view of the foregoing, Applicants respectfully submit that the combination of Schroeder and Iguchi does not teach or suggest the features of claims 38-42 and 44 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference in view of the Iguchi Reference and the Akel Reference

The Office Action rejected claim 43 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Iguchi and Akel. Applicants respectfully traverse the rejection.

Claim 43 ultimately depends from claim 38.

Akel does not remedy the deficiencies of Schroeder and Iguchi discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Schroeder, Iguchi and Akel does not teach or suggest the features of claim 43 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference in view of the Akel Reference

The Office Action rejected claim 45 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Akel. Applicants respectfully traverse the rejection.

Claim 45 includes the feature of the primary winding being arranged on a printed circuit board. While Akel may include a printed circuit board, Akel does not show a primary winding being arranged on a printed circuit board. Further, the Office Action does not point to anything

in Akel that corresponds to the claimed primary winding.

In view of the foregoing, Applicants respectfully submit that the combination of Schroeder and Akel does not teach or suggest the features of claim 45 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference in view of the Iguchi Reference and the Ose Reference

The Office Action rejected claims 47-49 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Iguchi and Ose. Applicants respectfully traverse the rejection.

Claims 47-49 ultimately depend from claim 38.

Ose does not remedy the deficiencies of Schroeder and Iguchi discussed above.

In view of the foregoing, Applicants respectfully submit that the combination of Schroeder, Iguchi and Ose does not teach or suggest the features of claims 47-49 and, therefore, rejection under 35 USC §103(a) is inappropriate. As a result, Applicants respectfully request withdrawal of the rejection.

The Schroeder Reference in view of the Hibino Reference

The Office Action rejected claim 51 under 35 U.S.C. §103(a) as being unpatentable over Schroeder in view of Hibino. Applicants respectfully traverse the rejection.

Claim 51 is cancelled. As a result, Applicants respectfully request withdrawal of the rejection.

CONCLUSION

In view of the above, Applicants respectfully request entry of the present Amendment and allowance of claims 19-50. If the Examiner has any questions regarding this amendment, Applicants request that the Examiner contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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